

AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are or were in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier.

1-17. (Canceled).

18. (Currently amended) A method of delivering a bioactive substance within a vessel, the method comprising:

providing apparatus comprising an anchor expandable from a delivery configuration to a deployed configuration, and ~~a~~ an eluting material adapted to elute a bioactive substance;

expanding the anchor to the deployed configuration within the vessel, the anchor engaging an interior wall of the vessel; and

eluting the bioactive substance from the eluting material into blood flowing through the anchor.

19. (Previously presented) The method of claim 18 further comprising, prior to expanding the anchor:

disposing the anchor in the delivery configuration within a distal end of a lumen of a delivery sheath; and

advancing the distal end of the delivery sheath to a delivery site within the vessel.

20. (Previously presented) The method of claim 18, wherein eluting the bioactive substance comprises eluting a substance chosen from the group consisting of gene therapy vectors, gene therapy sequences, and drugs.

21. (Previously presented) The method of claim 19, further comprising: collapsing the anchor back to the delivery configuration within the distal end of the delivery sheath lumen; and

removing the apparatus from the patient's vessel.

22. (Previously presented) The method of claim 19, further comprising, after expanding the anchor, removing the delivery sheath from the patient's vessel.

23. (Previously presented) The method of claim 18, wherein providing apparatus comprising an anchor comprises providing a resiliently expandable cage.

24. (Currently amended) The method of claim 18, wherein providing apparatus comprising ~~a~~an eluting material adapted to elute~~eluting~~ a bioactive substance comprises providing a material chosen from the group consisting of a spongy material, a floppy elongated member adapted for multiple turns, and a swellable pellet.

25. (Previously presented) The method of claim 22, further comprising:
readvancing the distal end of the delivery sheath to the delivery site within the vessel;
collapsing the anchor back to the delivery configuration within the distal end of the delivery sheath lumen; and
removing the apparatus from the patient's vessel.

26. (Currently amended) An intravascular device for delivering a bioactive substance into systemic circulation of an animal, the device comprising:

~~(a)~~ an anchor immobilizable to an inner wall of an intact blood vessel which, when immobilized in the blood vessel, permits blood in the vessel to pass therethrough; and

~~(b)~~ an eluting material adapted to elute ~~a reservoir containing~~ the bioactive substance, which when introduced into the blood vessel is retained by the anchor and releases the bioactive substance into blood ~~passing the reservoir~~.

27. (Previously presented) The device of claim 26, wherein the anchor comprises at least one element biased in a radially outward direction when immobilized in the blood vessel.

28. (Previously presented) The device of claim 26, wherein the anchor is a stent.

29. (Previously presented) The device of claim 26, wherein the anchor comprises a head and a plurality of filaments attached by one end to the head.

30. (Previously presented) The device of claim 29, wherein the anchor is an embolism anti-migration filter.

31. (Currently amended) The device of claim 26, wherein the anchor comprises a receptacle for receiving the eluting material ~~reservoir~~.
32. (Currently amended) The device of claim 26, wherein the eluting material ~~reservoir~~ comprises a spongy material ~~surface at least partially defining an inner volume for retaining the bioactive substance~~.
33. (Currently amended) The device of claim 32-26, wherein the spongy material ~~comprises foam reservoir is a pump~~.
34. (Currently amended) The device of claim 32-33, wherein the spongy material ~~comprises steel wool pump is an osmotic pump~~.
35. (Currently amended) The device of claim 26, wherein the eluting material ~~comprises a floppy elongated member reservoir is a drug permeable capsule~~.
36. (Currently amended) The device of claim 35, wherein the floppy elongated member is adapted for multiple turns ~~capsule has disposed therein particles containing a preselected drug for release therefrom~~.
37. (Currently amended) The device of claim 26-32, wherein the eluting material ~~comprises a swellable pellet surface is semi permeable~~.
38. (Currently amended) The device of claim 37, wherein the swellable pellet is water swellable ~~surface comprises pores of a size sufficient to permit diffusion of the bioactive substance therethrough~~.
39. (Previously presented) The device of claim 26, wherein the bioactive substance is a cardiovascular drug or a coagulation factor.
40. (Currently amended) The device of claim 26, wherein the eluting material ~~reservoir~~ comprises a plurality of pre-selected drugs which are released into blood ~~passing the reservoir~~.

41. (Currently amended) The device of claim 26, wherein the eluting material ~~reservoir~~ releases the bioactive substance over a pre-selected period of time.

42. (Currently amended) A method of introducing into a blood vessel a delivery device for delivering a bioactive substance directly into systemic circulation of an animal, the method comprising the steps of:

(a) immobilizing an anchor to an inner wall of an intact blood vessel, which when immobilized permits blood in the vessel to pass therethrough;

(b) introducing into the blood vessel an eluting material adapted to elute a reservoir ~~containing~~ the bioactive substance, such that when introduced into the blood vessel the eluting material elutes ~~reservoir releases~~ the bioactive substance into the blood ~~passing the reservoir~~; and

(c) permitting the eluting material ~~reservoir~~ to be retained in the blood vessel by the anchor.

43. (Currently amended) The method of claim 42, comprising the additional step of, ~~prior to step (a)~~, introducing the anchor into the blood vessel via a catheter.

44. (Currently amended) The method of claim 42, wherein the eluting material ~~reservoir~~ is introduced into the blood vessel by a catheter.

45. (Currently amended) The method of claim 42, comprising the additional step of coupling the eluting material ~~locking the reservoir~~ to the anchor.

46. (Currently amended) The method of claim 45, wherein the eluting material is coupled to a reservoir ~~is engaged with~~ the anchor after the anchor is immobilized in the blood vessel.

47. (Currently amended) An anchor for implantation into an intact blood vessel of an animal, the anchor comprising:

a first element adapted for immobilization to an inner wall of the blood vessel, wherein the first element comprises at least one member biased in a radially outward direction when immobilized in the blood vessel; and attached thereto

a second element adapted to couple with an eluting material forming a receptacle that defines a reservoir for a bioactive substance.

48. (Previously presented) The anchor of claim 47, wherein the first element is a stent.

49. (Previously presented) The anchor of claim 47, wherein the first element comprises at least one outwardly extending strut.

50. (Currently amended) The anchor of claim 47, wherein the further comprising a third element interposed between the first and second elements for connecting the first and second elements comprises a joint.

51. (Currently amended) The anchor of claim 50, wherein the second-third element comprises an extensible band-a filament.

52. (Currently amended) Apparatus A-reservoir for implantation into an intact blood vessel of an animal, the apparatus-reservoir comprising:

a first element for engaging a receptacle of an anchor immobilizable to an inner wall of the intact blood vessel; ~~and attached thereto~~

a second element comprising an eluting material adapted to elute having a wall at least partially defining an inner volume for retaining a bioactive substance and defining at least one pore dimensioned to permit the bioactive substance retained therein to pass therethrough; and means for coupling the first element to the second element.

53. (Currently amended) The apparatus-reservoir of claim 52, wherein the eluting material comprises a floppy elongated member-second element is a pump.

54. (Currently amended) The apparatus-reservoir of claim 53, wherein the floppy elongated member is adapted for multiple turns-pump is an osmotic pump.

55. (Currently amended) The apparatus-reservoir of claim 52, wherein the eluting material is a swellable pellet-second element is a drug permeable capsule.

56. (Currently amended) The apparatus-reservoir of claim 55, wherein the swellable pellet is a water swellable pellet capsule has disposed therein particles containing a preselected drug for release therefrom.

57. (Currently amended) The apparatus-reservoir of claim 52, wherein the eluting material comprises a spongy material wall of the second element is a semi-permeable membrane.

58. (Currently amended) The apparatus-reservoir of claim 57, wherein the spongy material comprises a material selected from the group consisting of foam and steel wool semi-permeable membrane defines pores of a size sufficient to permit diffusion of the bioactive substance therethrough.

59. (Currently amended) The apparatus-reservoir of claim 52, wherein the bioactive substance is a cardiovascular drug or a coagulation factor.

60. (Currently amended) The apparatus-reservoir of claim 52, further comprising a plurality of pre-selected drugs for release therefrom.